## **CALFED BAY-DELTA PROGRAM**

## **Tracking Table for Ecosystem Restoration Projects**

May 7, 1999

CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status
				Contract	Agency:	CALFED E	Bay-Delt	a Progra	am (Pro	op 204 Funds)	
97-C01	RD 108 screen construction (A175)	Reclamation District 108	Sacramento - Mainstem	\$2,500,000	\$2,500,000	\$2,127,152	\$3,800,000	#######################################		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Fully executed 7/16/98 - Construction 95% complete. Requested Amendment to extend contract 6 mos. Through 12/31/99. High water levels have delayed completion of
97-C02	Princeton Fish screen construction B73(A227)	Reclamation District 1004	Sacramento Mainstem	\$1,750,000	\$1,750,000	\$1,469,027	\$544,000	\$2,675,000		Reduce entrainment of outmigrating and resident fish. Measure screen approach, sweep, and bypass flow velocities.	Fully executed 9/22/98, Construction 95% complete. Finishing start-up testing.
	Watershed management planning for Sacramento River Riparian Program (G195)	of Water	Sacramento Mainstem	\$200,000	\$200,000	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Participation and extent of implementation activities. Protect and enhance riparian habitat. Measure riparian density and species composition, pre and post	Fully executed 8/4/98. DWR completed subcontract with Chico State for the program.
97-C04A	Selected fish screens (A129)	Department of Fish and Game	Sacramento Tributaries	\$446,250	\$374,850	\$0	\$0	\$0		Reduce entrainment of outmigrating and resident fish. Measure screen approach, sweep, and bypass flow velocities.	Fully executed contract for small screens for 374,850 on 2/2/99.
	Selected fish screens (A129)	DWR	Suisun Marsh	\$2,784,600	\$0	\$0	\$0	\$151,000		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	DFG cannot contract for fish screen construction over \$500,000, so contract is for small screens for 374,850. Suisun marsh screens will go under DWR contract for
	Effects of wetlands restoration on methyl mercury levels (D274)	UC Davis	Delta	\$546,171	\$546,171	\$37,500	\$0	\$0		Evaluate relationship of physical, chemical and biological gradients on methyl mercury production and bioaccumulation. Sample levels of mercury in bioindicator species from various sites in the Delta. Sample sediment cores from various sites and locations in the Delta will be used in mercury	Fully executed 9/24/98. Completed purchase of mercury analyzer and working on verifying analytical methods-field sampling ongong to catalogue wetlands & determine key gradients.
97-C06	Contaminant effects on smelt (E6)	UC Davis	Delta	\$437,326	\$437,326	\$0	\$0	\$0		Evaluate the potential impact of contaminants on Delta smelt. Obtain samples and evaluate using histopathology, genetic and otolith analyses.  Evaluate exposure of young smelt to chemical	Fully executed 11/20/98.
	Preventing exotic introductions from ballast water (I46)	UC Sea Grant Extension Program	North Bay	\$222,830	\$222,830	\$0	\$0	\$63,885		Increase maritime industry members' awareness of ballast release issues and alternative practices to reduce new introduction into the Delta. Participation and effectiveness surveys.	Fully executed 8/24/98. Project delayed until 2/99 due to staffing problems. Work on newsletter & outreach has begun.
97-C08	time water quality	Department of Water Resources	San Joaquin Mainstem	\$932,000	\$931,857	<b>\$0</b>	\$0	\$0		Increase water user awareness of real time data and its beneficial use. Survey participation, use of data base and changes in load adjustments. Reduce water quality excursion in the SJ Delta system as real time data is utilized. Measure water quality conditions and variances over time. Monitor New Melones water poperations for net	Fully executed 3/30/99.
97-C09	Developing a genetic baseline for San Joaquin salmon (I121)	Department of Fish and Game	San Joaquin Mainstem	\$387,003	\$387,003	\$0	\$0	\$600,000		Characterize the genetic makeup of SJ Fall run chinook salmon. Collect and analyze tissue samples from populations over 3 year period.	Contract fully executed by 2/1/99.
97-C11	(H125)	Department of Fish and Game	Tuolumne River	\$250,975	\$250,975	\$0	\$0	\$22,100		Improve the quality and quantity of spawning habitat, use, and durability. Redds survey; visual observation; carcass surveys - pre and post project Monitor channel and geomorphic characteristics (pebble counts, bulk samples, profiles), pre and post project and over time. Insert storage of gravel will be transported downstream over time to support downstream habitats. Monitor channel and neomorphic characteristics (nebble counts, bulk	

<sup>&</sup>lt;sup>1</sup> Acquisition of land where all or part are maintained in existing agricultural use - farmed or grazed,

<sup>&</sup>lt;sup>2</sup> Acquisition of existing habitat, or restoration of public lands or existing degraded habitat - No land use change.

CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status
	Evaluation of alternative pesticide use reduction practices (B211)		Other	\$957,781	\$957,781	\$18,405	\$0			Monitor water quality before and after outreach program to determine efficiency of program.	Fully executed 8/26/98, completed Task Order for year 1 work 11/18/98. Development of Alternative Practices Matrix 49% complete
98-C01		Department of Water Resource	Delta	\$3,583,000	\$0	\$0 -	\$0	\$0		Evaluate techniques to reverse the subsidence of Delta island habitat. Monitor biomass acretions and deposition of sediment over time, and costs.	Sent to DGS for signature 4/29/99.
98-C02	Culture of Delta Smelt (1166)		Delta	\$194,870	\$194,870	\$90,621	\$0	\$0	-	Develop culture methods to supply all life stage of delta smelt for research studies. Collect data on larvae size, weight, and food intake for different water types, tank size, and water constituents.	Fully executed 9/10/98. Physical improvements to site completed, testing, & delta water supply with larval fish. Broodfish collection &
98-C03		Calif. Coastal Conservancy and SF BCDC	Northbay	\$1,000,015	\$1,000,015	\$0	\$0	\$1,324,000		Restore subsided diked area to upland seasonal and tidal wetland habitats. Monitoring of site physical characteristics (elevation, contours, etc.) and hydraulics. Water quality monitoring (salinity, temperature, and DOJ. Monitor vegetation development (extent, location, composition, and	Fully Executed 10/28/98 Signed Task Orders 1-3 for EIR/EIS, Hamilton Conceptual Restoration Plan, and feasibility study. EIR/EIS complete.
98-C04	Merced River Ranch acquisition and restoration (H122)	Department of Fish and Game	Merced River	\$658,000	\$658,000	\$0	\$0	\$45,500	42	Protect and enhance riparian, welland and aquatic habitats, and provide supply of gravel for spawning habitat projects.	Combined with 98-C05 Basso Bridge land acquisition.
98-C05	Basso Bridge land acquisition (H123)	Department of Fish and	Tuolumne River	\$172,500	\$172,500	\$0	\$0	\$0	318	Protect spawning riffles, and protect and enhance riparian species.	Fully executed 1/5/99.
98-C06	Water Quality Criteria for Chlorpyrifos and Diazinon (Designated	Department of Fish and Game	Landscape	\$70,000	\$67,753	\$0	\$0	\$0		Develop water quality criteria for clorpyrifos and diazinon Conduct toxicity test on ceriodaphnia and psysa	Contract fully executed 3/8/99.
98-C07	Fathead Minnow Toxicity (DA)	CVRWQCB	Landscape	\$400,000	\$400,000	\$0	\$0	\$0	•	Evaluate toxicity and water quality in the Delta. Collect samples quarterly from various river and slough sites in the Delta for subsequent lab testing for contaminants and toxicity (fathead minnow larval growth and survival, ceriodaphnia	Contract fully executed 2/5/99.
	Algal Toxicity (DA)	CVRWQCB	Sacramento River	\$500,000	\$500,000	\$0	\$0			Evaluate toxicity and water quality in the Delta. Collect samples quarterly from various river and slough sites in the Delta for subsequent lab testing for contaminants and toxicity.	Contract fully executed 2/5/99.
98-C09a	Sediment Water Quality (DA)	DPC	Delta	\$24,000	\$0	\$0	\$0	* \$0		Determine toxicity criteria and sediment reuse potential to develop a Delta Dredging Reuse	Contract fully executed 4/16/99.
98-C09b	Sediment Water Quality (DA)		Delta	\$276,000	\$276,000	\$0	\$0	\$0		Same as 98-C09a	Fully executed 3/30/99.
98-C09c	Sediment Water Quality (DA)		Delta	\$200,000	\$0	\$0	\$0	\$0		Same as 98-C09a	Contract sent to contractor for signature 3/16/99.
	CMARP (DA)	DWR	Landscape	\$800,000	\$0	\$0	\$0	\$0		Develop a Comprehensive Monitoring and Research Program for CALFED.	Contract sent to DGS for approval 4/29/99.
98-C11	Chinook Salmon Movement in the Lower SJR and South Delta(A1000)	DFG	San Joaquin River and Delta	\$285,000	\$0	\$0	\$0	. \$0		Evaluate fish migration and delays through lower San Joaquin River and south Delta as potentially impacted by South Delta Temporary Barriers, Head of Old River Barrier and/or low Do levels. Track	Contract sent to contractor for signature 3/19/99.
98-C12	Genetic Comparison of Steelhead Stocks in Clear Creek (F1001)	USFWS	Clear Creek	\$45,493	\$0	\$0	\$0	\$0		Evaluate alternative steelhead stocks for future restocking of Clear Creek. Collect tissue samples for genetic evaluation.	Contract sent to contractor for signature 3/19/99.
98-C13	Spawning Areas of Green Sturgeon in the Upper Sacramento	USFWS	Sacramento River	\$60,801	\$0	\$0	\$0			Characterization of Green Sturgeon habitat and life history patterns in the upper Sacramento River. Survey of spawning areas.	Contract sent to contractor for signature 3/19/99.
	Monitoring Spring and Winter-run Chinook Salmon and Steelhead in Battle Creek (F1003)	·	Battle Creek	\$150,000	\$0	\$0	\$0			Evaluate life history characteristics for spring and winter run chinook and steelhead in Battle Creek. Fish counts, snorkel surveys, juvenile monitoring using screw traps. Genetic data for species.	Contract sent to contractor for signature 3/19/99.
98-C15		UC Davis	Sacramento- San Joaquin Watershed	\$241,000	\$241,000	\$0	\$0	\$0		Identify the biological characteristics of green sturgeon. Behavioral and tolerance limits to temperature ranges for various size fish. Biological examination of reproduction system and function. Genetic data for GS and white sturgeon. Examine Embryo samples to measure developmental	Contract fully executed 3/30/99.

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	Developing a Methodology to Accurately Simulate Entrainment of Fish	DFG	Delta	\$200,000	\$0	\$0	\$0	\$0			Sent to contractor for signature 3/25/99.
99-C01	Cosumnes Rver Feasibility Study (DA11)	The Nature Conservancy	Delta	\$400,000	\$0	\$0	\$0	. \$0		Feasibility Study of Ecosystem Restoration	Contract at CALFED Legal, awaiting sole source approval from DGS.
	Mokelumne River Feasibility Study (DA12)	EBMUD	Delta	\$400,000	\$400,000	\$0	\$0	\$0			Contract fully executed 4/20/99
			Total:	\$ \$21,075,615	\$12,468,931	\$3,742,705					
			32		59%	. 18%					69%
			Contracts		Obligated	Expended					Executed

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CALFED			Geographic	CALFED	CALFED	CALFED	CVPIA	Other		I	
No.	Project Description	Applicant	Area	Approved Funding	Funds Obligated	Funds Expended	Funds.	Funds	Acres	Monitoring	Status
,			Co	ontract Age	ency: Natio	onal Fish a	and Wild	llife Fou	ndatio	n (Prop 204 funds)	
'97-N01	,	Sacramento Area Stormwater Permittees	Sacramento Mainstem	\$663,500	\$663,500	\$0	\$0	\$193,000		Characterize baseline temporal and spatial trends of OP Pesticide runoff in the Sacramento region. Concentration during various conditions and at various locations pre project. Evaluate effect of OP Pesticide control program on the water quality conditions. Concentration during various conditions and at various locations post project. Evaluate if the level/conditions are significant.	Contract signed 8/29/98, received QAQC, need to review 2 draft subcontracts.
97-N02	Sacramento River floodplain acquisition and riparian restoration (G261)	WCB, USFWS, The Nature Conservancy	Sacramento Mainstem	\$9,879,800	\$9,879,800	\$1,900,000	\$0	\$0	1,500 <sup>1</sup>	Increase extent of channel meander and flood zones. Mapping of aquatic and terrestrial habitats. Increase native riparian growth and reduce exotic distribution adjacent to the river. Measure tree density and species composition and height, pre and post project. Measure exotic weed cover, pre and post project. Measure floor litter quality and quantity to evaluate accumulation and Carbon/Nitrogen ratios, pre and post project. Conduct point counts and areas searches for songbird populations and habitat characteristics as indicator of ecolonical health. Groundwater.	Contract signed 2/4/99. First property purchase in escrow.
	forest restoration (G278)		Sacramento Mainstem	\$780,000	\$780,000	\$0	\$0	\$0	300 <sup>2</sup>	Same as 97-N02	Contract signed 12/8/98.
97-N03B	Sacramento River floodplain acquisition and riparian restoration	WCB	Sacramento Mainstem	\$512,500	\$0	\$0	\$0	\$0	See 97N03A	Same as 97-N02	Scope of work received 3/16/99. Under review. Resolving indemnification issues.
97-N04	Sacramento River meander restoration (G291)	The Nature Conservancy	Sacramento Mainstem	\$898,700	\$898,700	\$811,285	\$0	\$0	95	Same as 97-N02	Contract signed 10/28/98. Property purchased. Completing subcontracts for site preparation and planting.
	Restoration planning (M and N Fork American River, Auburn Ravine, Coon Creek) (F297)	Placer County	American River	\$222,530	\$222,530 •	\$0	\$0	\$222,530		Evaluate restoration needs toward the protection and improvement in water quality, aquatic habitat and its assessibility, and riparian communities.	Contract executed 3/29/99.
	Butte Creek acquisition and riparian restoration	CSU, Chico	Butte Creek	\$187,128	\$187,128	\$0	\$0	\$135,000	90 <sup>2</sup>	Protect riparian habitat. Monitor revegetation. Similar to 97-N02.	Contract signed 12/21/98.
97-N07	Cottonwood Creek channel restoration planning (G171)	Graham Matthews & Associates	Cottonwood Creek	\$61,000	\$61,000	\$17,516	\$0	\$10,000		Describe geomorphic conditions and changes in region toward development of channel and riparian restoration plan. Survey of geomorphic and riparian characteristics, current and historical, and	Contractor signed 7/1/98. Work is ongoing.
97-N08	Lower Mill Creek riparian restoration (G292)	Mill Creek Conservancy , The Nature Conservancy	Mill Creek	\$69,000	\$69,000	\$0	\$30,000	\$109,670	3	Increase native riparian growth adjacent to the river. Measure tree density and species composition and height, pre and post project.	Contract signed 12/29/98.
		San Francisco Baykeeper	Delta	\$100,000	\$100,000	\$29,318	- \$0	\$20,000		Evaluate toxicity and water quality in the Delta. Collect samples quarterly from various river and slough sites in the Delta for subsequent lab testing for contaminants and toxicity (fathead minnow larval growth and survival, ceriodaphnia	Contract signed 9/18/98.
97-N10	Jepson Prairie restoration and conservation plan (K109)	Solano County Farmlands, Open Space	Delta	\$244,801	\$244,801	\$0	\$0	\$0	600 <sup>2</sup>	Restore habitat. Monitor vegetation/tree survivorship, abundance, size and distribution, pre and post project and comparison to control.	Contract signed 1/29/99.

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CALFED			Geographic	CALFED	CALFED	CALFED	CVPIA	Other			
No.	Project Description	Applicant	Area	Approved Funding	Funds Obligated	Funds Expended	Funds	Funds	Acres	Monitoring	Status
97-N11	In-Channel Island restoration/demonstratio n (K185)	Association of Bay Area Governments	Delta	\$270,270	\$270,270	\$5,267	\$0	\$91,000	-	Demonstrate effective biotechnical methods to reduce erosion of in-channel islands and adjacent delta island banks. Visual observation of wave and current energy, pre and post project for different application practices for different hydrodynamic conditions. Field mapping and sediment deposition/accretion pre and post project and compare with control. Survey of fish and wildlife use and breeding, including invasive non-native species. Demonstrate that installations can be installed while minimizing impact to existing	Contract signed 7/15/98.
97-N12	Franks Tract restoration (K216)	Moffat and Nichol Engineers, DPR, DWR	Delta	\$231,500	\$231,500	\$9,762		\$370,000	40	ecolonical values Pre and nost project surveys of Restoration of deeply flooded habitat to tidal perennial aquatic, shaded riverine aquatic, and mid channel island shoal and shoal habitats. TBD - Physical/geomorphological characteristics of Islands.	Contract signed 12/29/98.
97-N13	Tyler island levee protection and habitat restoration pilot project (K38)	Habitat Assessment & Restoration Team, Inc	Delta	\$885,202	\$885,202	\$82,098	\$0	\$0	6	Evaluate, alternative vegetative and biotechnical techniques for restoring and stabilizing levee and bank erosion and riparian and shallow water habitat. Measure boat wake energy dissipation for different installation practices, compare with contro. Measure sediment deposition occurring with different installation practices, compare with control and different locations. Survey macroinvertebrate and fishery population for the different installation practices, compare with control and different locations. Survey water installation practices, compare with control and different locations.	Contract signed 7/22/98.
97-N14	Cosumnes start-up stewardship and restoration (H307)	WCB, The Nature Conservancy	Cosumnes River	\$1,975,100	\$0	\$0	\$0	\$0		Conduct baseline monitoring of riparian vegetation, wildlife, avian and fish resources	Reviewing Scope of Services and Task Order.
97-N16	Bay Point shoreline Restoration Plan (K42)	East Bay Regional Park District	Suisun Marsh and Bay	\$185,000	\$185,000	\$0	\$0	\$53,900	52 <sup>2</sup>	Restore tidal salt marsh habitat and function. Monitor tidal flow and range over time. Monitor water quality and sedimentation processes over time. Monitor changes in plant species diversity, density and cover. Survey use by fish and wildlife	Contract signed 8/12/98.
97-N18	Cullinan Ranch restoration (M327)	Ducks Unlimited,	North Bay	\$368,500	\$368,500	\$0	\$0	\$662,000	1,495 <sup>2</sup>	See 97-N16	Contract executed 3/30/99.
97-N19	Tolay Creek restoration (M326)	Ducks Unlimited, Inc.	Tolay Creek	\$283,000	\$283,000	\$232,090	\$0	\$422,000	312 <sup>2</sup>	See 97-N16	Contract and first task order approved by CALFED and signed 10/16/98. Channel modifications complete and levee breeched Dec.
97-N20	to reduce the use of pesticides and fertilizers	Community Alliance with Family Farmers	San Joaquin Mainstem	\$1,680,631	\$1,680,631	\$167,619	\$0	\$0		Increase awareness of users to detrimental impacts and mitigation approaches. User survey on past and post-project application. Evaluate different application techniques and their impact on runoff water quality, develop protocols and models. Water quality and flow measurements in surface water adjacent to sites. Increase farmer awareness of impacts of pesticide use and alternatives to reduce water quality problems in the Central Valley.	Contract signed 7/20/98.
97-N21	replenishment (H137)	Consultants	Stanislaus River	\$536,410	\$536,410	\$53,490	\$0	\$90,000		Improve spawning habitat quality and quantity, and evaluate conditions for successful and durable restoration. Map redd locations, and changes over time and under different gravel supply conditions, at various sites. Measure transect and vertical hydraulic gradient during spawning period and after incubation at various sites. Improve incubation habitat and conditions by adding gravel with no fines. Intercravel water temperatures flows. DO	
98-N01	RD 2035 Fish Screen(A1002)	Reclamation District 2035		\$100,000	\$100,000	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow	Contract executed 3/31/99.

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98-N02	Expanding California	Institute for	Bay-Delta	\$49,000	\$49,000	\$0	\$0	\$0		Research project to inventory and develop a	Contract signed 3/12/99.
	Salmon Habitat to Alter	Fisheries	Watershed				1			mechanism to purchase dams and diversions from	*
	Dams and Diversions	Resources								willing sellers to improve fish passage	
98-N03	Life History and Stock	Yuba Co.	Yuba River	\$120,000	\$0	\$0	\$0	\$0		Characterization of steelhead habitat and life	Contract sent to contractor for
	Composition of	Water								history patterns in the Yuba River. Trap fish	signature on 4/5/99.
	Steelhead Trout (F1005)	Agency	ŀ			ì	ì	ì		through year, and then measure and collect scale	
										and tissue samples for evaluation. Genetic data for	
98-N04	Small Fish Screen	Pelgar	Sacramento	\$95,000	. \$0	\$0	\$0	\$0		Evaluate the effect of screening small screen	Contract sent to contractor for
	Evaluation (I1003)	Mutual Water	River			ì	1	1		diversion. Fyke net and live box sampling at	signature on 3/26/99.
		Company								screened and unscreened diversions at various	
99-N01	ACID Fish Screen(DA4)	Sacramento	Sacramento	\$5,100,000	. \$0	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure	Draft proposal under review. Will
		Area	River					1		screen approach, sweep, and bypass flow	meet in April to continue to discuss
		Stormwater	ŀ		•		i			velocities. Evaluate the impact of shallow water	water as cost-share.
		Permittees								restoration actions on water quality. Collect and	*
										conduct physical/chemical analyis of water and soil	
•			Totai: \$	\$25,498,572	\$17,695,972	\$3,308,445					
			25		69%	13%					80%
		l	Contracts		Obligated	Expended					Executed

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CALFED	B11.B		Geographic	CALFED	CALFED	CALFED	CVPIA	Other			
No.	Project Description	Applicant	Area	Approved Funding	Funds Obligated	Funds Expended	Funds	Funds	Acres	Monitoring	Status
		Contra	ct Agenc				ncies/ N	letropoli	tan Wa	ater District (Stakeholder funds)	<u> </u>
95-M01	Interim Flow Restoration		Sacramento Tributaries	\$0	\$0	\$0		\$0			Completed.
95-M02	Fish Screen and Ladder Construction		Sacramento Tributaries	\$316,500	\$316,500	\$258,208	\$464,720	\$127,031		For Butte Creek system, 100,000 juvenile spring- run have been marked. Also evaluation of fish	Completed.
95-M03		M&T	Sacramento	\$0	· \$0	\$0	\$100,000	\$318,000	:	behavior at ladder entrance was completed For Butte Creek system, 100,000 juvenile spring-	Completed.
95-M04		Ranch/Parrot DWR	Tributaries Sacramento River	\$0	\$0	. \$0	\$39,400	\$13,100		run have been marked. Small gravel project. Restore and improve floodplain functions. Restore riparian and wetland	Completed.
95-M05	Pump Station	M&T	Sacramento	\$1,610,000	\$1,610,000	\$1 610 000	\$2,254,000	\$830,000		vegetation. Monitor vegetation, fish and wildlife A separate AFRP monitoring plan. NMFS	Completed.
	•	Ranch/Parrot t Investments Co.	Tributaries	• ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<b>4.10</b> .151030		<b>42,23</b> 1,000	4000,000	i i	monitored velocity on screen face. Improve and restore spawning habitat and durability. Conduct redd counts and other use surveys.	Completed.
	to reduce the use of pesticides and fertilizers	Community Alliance with Family Farmers	Watershed	\$660,000	\$660,000	\$654,200	\$0	\$0		Monitoring of progress of willingness of farmers to reduce pesticide use is being documented.	Year 2 of 3 year project.
95-M07	Fish Screen Construction	Suisun RCD	Suisun Marsh	\$450,000	\$450,000	\$450,000	\$450,000	\$0		Suisun Resource Conservation District has long- term monitoring program. Reduce entrainment. Measure screen approach, sweep and bypass flow	Completed.
95-M08	Winter-run Chinook Salmon	DWR	Watershed	\$300,000	\$300,000	\$284,000	\$0	\$250,000		Research protocols are peer-reviewed.	Completed.
96-M01	·	Western Canal Water District	Sacramento Tributaries	\$3,095,873	\$3,095,873	\$2,986,067	\$3,095,873	\$3,265,873	,	Monitoring plan has been designed and is underway. Reduce entrainment. Measure screen approach, sweep and bypass flow velocities.	Completed.
96-M02	Prospect Island - Shallow Water Habitat/Wetlands	DWR	Delta	\$2,500,000	\$2,500,000	\$0	\$0	\$6,650,000		Design, implement and monitor restoration of shallow water habitat/wetlands on Prospect Island.	Expect contract execution in near future.
96-M03	Riparian Habitat Restoration Verona- Collinsville (Phase 1-	:	Sacramento River	\$500,000	\$500,000	\$237,725	\$0	\$500,000		Demonstration project will monitor riparian habitat	Completed.
96-M04	Princeton Pumping Plant Fish Screen	Reclamation District 1004	Sacramento River	\$75,000	\$75,000	\$75,000	\$150,000	\$100,000		Reduce entrainment measure screen approach, sweep and bypass flow velocities.	Completed.
96-M05	Engineering	Princeton- Codora- Glenn / Provident Irrigation	Sacramento Ríver	\$75,000	\$75,000	\$75,000	\$75,000	\$0		Monitoring does not apply to a feasibility study.	Completed.
96-M06	Cosumnes River Preserve (Valensin Ranch Acquisition)	The Nature Conservancy	Delta	\$1,500,000	\$1,500,000	\$1,500,000	\$1,250,000	\$9,250,000	3,300 <sup>1</sup>	Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Completed.
96-M07	Fish Screen Construction	Princeton- Codora- Glenn / Provident Irrigation	Sacramento River	\$5,500,000	\$5,500,000	\$3,503,773	\$5,281,200	\$0		Screen will have velocity monitoring. Owner will conduct fyke netting for fish counts.	Completion expected in August 1999
	Fish Screen Construction (Phase 2 - Install Additional	Suisun RCD	Suisun Marsh	\$500,000	\$500,000	\$0	\$500,000	\$0		Suisun Resource Conservation District has long- term monitoring program. Reduce entrainment. Measure screen approach, sweep and bypass flow	Need USFWS decision on priorities.
	Sherman Island - Levee Habitat Demonstration Project	`	Delta	\$480,000	\$480,000	\$76,266		\$480,000		Riparian habitat will be monitored for growth and endurance.	Bids exceed budget. Steering Committee denied request for additional funding. Proponent
	Diked Wetlands	University of Washington		\$575,172	\$575,172	\$121,559				Project develops conceptual model based on field investigations.	Steering Committee approved additional \$100,172 for additional fisheries and bird field work.
	Applied Research to Identify Chinook Salmon Runs via Genetics	DWR	Watershed	\$450,000	\$450,000	\$0	\$0	\$600,000		Research protocols are peer-reviewed.	Project is underway.

<sup>&</sup>lt;sup>1</sup> Acquisition of land where all or part are maintained in existing agricultural use - farmed or grazed.

<sup>&</sup>lt;sup>2</sup> Acquisition of existing habitat, or restoration of public lands or existing degraded habitat - No land use change.

CALFED	Project Description	Applicant	Geographic	CALFED Approved	CALFED Funds	CALFED Funds	CVPIA	Other	Acres	Monitoring	Status
No.			Area	Funding	Obligated	Expended	Funds	Funds	Acres	Worntoring	Status
96-M12	Battle Creek - Chinook Salmon & Steelhead Restoration Study	Bill Keir Associates	Sacramento Tributaries	\$306,000	\$306,000	\$274,278	\$0	\$0		Monitoring is part of a recently approved Battle Creek project. See 98-B16.	Completed.
96-M13	Yolo Bypass - Habitat Restoration Study	DWR	Yolo Bypass	\$226,000	\$226,000	\$205,000	\$0	\$30,000		Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Project assigned to NFWF. Project completed.
96-M14	Clear Creek - Property Acquisition	Western Shasta RCD	Sacramento Tributaries	\$211,000	\$211,000	\$211,000	\$211,000	\$0	120	Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Project assigned to NFWF. Project completed.
96-M15	Intro. of Non-indigenous Aquatic Species Research Program	San Francisco Estuary	Watershed	\$197,000	\$197,000	\$184,650	\$0	\$0		Reports are peer-reviewed.	90% complete.
96-M16	Sacramento River and Major Trib Corridor Mapping Project	CSU, Chico	Sacramento River	\$145,200	\$145,200	\$61,342	\$0	\$0		Products meet mapping standards.	80% complete.
96-M17		Browns Valley Irrigation	Sacramento Tributaries	\$114,750	\$114,750	\$40,453	\$114,750	\$116,500		Reduce entrainment. Measure screen approach, sweep and bypass flow velocities	30% complete.
96-M18	Determine Effects of Toxics	Phyllis Fox & Associates	Watershed	\$110,000	\$110,000	\$15,000	\$0	\$0		Project terminated.	Agreement could not be reached on project scope.
96-M19	Wilkins Slough - Fish Screen Prelim, Design	Reclamation District 108	Sacramento River	\$100,000	\$100,000	\$100,000	\$100,000	\$16,300		Monitoring does not apply to a feasibility study.	Completed.
96-M20	Fish Screen Project	Banta- Carbona Irrigation	San Joaquin River	\$100,000	\$100,000	\$0	\$1,916,750	\$0		Reduce entrainment of outmigrating and resident fish. Measure screen approach, sweep and bypass flow velocities.	In order to accommodate delta smelt habitat, a new feasibility study has been completed.
96-M21		El Escalon - Ranch	Sacramento Tributaries	\$70,304	\$70,304	\$63,271	\$0	\$50,000		Draft monitoring plan for physical and biological monitoring has been completed by owner. Reduce entrainment. Measure screen approach, sweep	Completed.
96-M22	Gorrill Dam Fish Screen & Ladder	Gorrill Ranch	Sacramento Tributaries	\$67,990	\$67,990	\$61,191	\$0	\$58,500		Draft monitoring plan for physical and biological monitoring has been completed by owner. Reduce entrainment. Measure screen approach, sweep	Completed.
96-M23	Innovative Fish Screen for Small Diversions Demonstration Project	Jim Buell & Associates	Watershed	\$90,000	\$90,000	\$51,773	\$0	\$0		Research protocols are peer-reviewed.	Project will be complete at 60% of work due to ESA concerns.
96-M24	Butte Creek - Watershed	CSU, Chico	Sacramento Tributaries	\$83,000	\$83,000	. \$0	\$0	\$83,000		Existing conditions report and recommendation for future action including monitoring.	90% complete.
96-M25		Western Shasta RCD	Sacramento Tributaries	\$50,000	\$50,000	\$25,065	\$50,000	\$0		Monitoring is part of a recently approved Battle Creek project. See 98-B16.	50% complete.
96-M26	Prospect Island - Develop Monitoring Plan	DWR	Delta	\$35,000	\$35,000	\$35,000	\$0	\$0		Monitoring plan is complete.	Completed.
96-M27	North Delta Area - Juvenile Salmon	CSU, Chico	Delta	\$24,500	\$24,500	\$9,245	\$0			Inventory of rearing habitat for fisheries, including fisheries surveys.	75% Complete
97-M01	Wilson Ranch screen (A313)	Deseret Farms of	Sacramento Mainstem	\$200,000	\$0	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow	Draft contract sent to Deseret Farms of California.
97-M02	Battle Creek screens and fish passage (A194)	Department of Water Resources	Battle Creek	\$395,000	\$395,000		\$0	\$0		See 98-B16	DWR has completed first phase of work; remaining work in progress.
97-M03	Gorrill Dam screen and ladder (A179)	Gorrill Land Company	Butte Creek	\$369,641	\$369,641	\$61,191	\$755,948	\$268,318		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities. Increase upstream passage of returning	Project is complete.
97-M04	Adams Dam screen and passage (A330)	Ducks Unlimited, Inc.	Butte Creek	\$217,000	\$217,000	\$157,500	\$508,192	\$171,000		Increase upstream passage of returning adults. Monitoring of fish behavior at the entrance of and movement through the ladder. Reduce entrainment of outmicrating fish. Measure screen approach.	Project is complete.
97-M05	Saeltzer Dam Fish Passage (A108)	Townsend Flat Water Ditch Company	Clear Creek	\$138,200	\$0	\$0	\$0	\$0		Increase upstream passage of returning adults.  Monitoring of fish behavior at the entrance of and movement through the ladder. Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	USBR undertaking environmental and permitting tasks; so CUWA's funding for this project was reduced by about \$100,000. Project on hold until negotiations between Townsend Flat Water Ditch Co, and USBR

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Status	Draft contract being prepared.	Received proponents indication of desire to proceed. Contract under preparation.	Negotiating a change of scope for review by CALFED.	Negotiating a change of scope for review by CALFED.	77% Executed
Monitoring	Reduce entrainment of outmigrating fish. Measure Draft contract being prepared screen approach, sweep, and bypass flow velocities. Increase unstream nassane of refurning		Increase survival of outmigrating smolts. Monitor Negotiating a change of scope for temperature and water quality, pre and post project, review by CALFED. Conduct mark/recapture experiments. Protect and restore spawning habitats and their durability. Monitor flows and geomorphic and channel characteristics are and cost project. Survey	project. project. ct and y.	
Acres					
Other Funds	0\$	0\$	0\$	0\$	
CVPIA	\$	0\$	0\$	0\$	
CALFED Funds Expended	0\$	0\$	Ŏ\$	\$00	48% Expended
CALFED Funds Obligated	O\$	0\$	\$		77% Obligated
CALFED Approved Funding	\$27,000	\$938,875	\$2,353,100	\$2,801,000	
Geographic Area	Delta	San Joaquin Mainstem	Tuolumne River	Tuolumne River Total: ¢	43 Contracts
Applicant	Hastings Island Land Company	Banta- Carbona Irrigation	Turlock Irrigation District	Turlock Irrigation District	
Project Description	Hastings Tract screen feasibility study (A314)	Banta-Carbona fish screen (A101)	Tuolumne River channel restoration (Pool 9) (H134)	Tuolumne River setback Turlock levees and channel irrigatio restoration (H136) District	
CALFED No.	97-M06	97-M07	97-M08	97-M09	

CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved	CALFED Funds	CALFED Funds	CVPIA Funds	Other Funds	Acres	Monitoring	Status
			Aica	Funding	Obligated	Expended			ion (Ec	ederal funds)	<u> </u>
07.531			i						IOII (FE	,	
97-B01		US Forest Service	Sacramento Tributaries	\$371,000	\$371,000	\$50,000	\$0	\$69,000		Existing long-term condition monitoring program in- place	Contract executed 3/16/98.
97-B02	movement and availability and monitoring in the Delta	USGS	Delta	\$1,046,200	\$1,046,200	\$243,000	\$0	\$0		Describe the movement and availability of sediment in the Delta, as needed for habitat restoration. Monitor sediment transport (suspended load and bedload) at several locations.	Contract executed 3/16/98 for \$587,000. Contract executed 5/21/98 for \$460,000.
97-B03	Liberty Island acquisition (K207)	USFWS	Delta	\$8,577,000	\$8,577,000	\$0.	\$25,000	\$0	4,760 <sup>1</sup>	Protect and restore tidally influenced wetlands, riparian corridors, and upland habitats. Measure distribution of habitats and species populations.	Contract executed 3/11/98. NEPA documentation underway. Acquisition expected by 10/31/99.
97-B04	Acquisition and restoration of Refuge lands (SJR NWR)	USFWS	San Joaquin Mainstem	\$10,647,000	\$10,647,000	\$1,651,000	\$0	\$9,353,000		Protect and restore lands, riparian corridors, and other wetland habitats. Measure distribution of habitats and species populations.	Contract executed 3/11/98. One parcel acquired, appraisals underwoon other parcels. Closure expected
97-B05	Bear Creek floodplain restoration demonstration project	USFWS	Bear Creek	\$334,000	\$334,000	\$332,000	\$0	\$80,000	1326 <sup>2</sup>	Protect and enhance riparian, floodplain and wetland habitats. Measure distribution of habitats and species populations.	Contract executed 3/14/98.
97-B06	Assessment of organic matter in the habitat and its relationship to the food chain (J3)	usgs	Other	\$1,400,000	\$1,400,000	\$382,000	\$0	\$0		Evaluate habitat influences on the production and utilization of organic matter as food source in the Delta, and improve modeling capabilities. Obtain or measure food quality and quantity from various	Contract executed 3/16/98 for \$517,000. Contract executed 7/22/9 for \$833,000.
98-B01		Richter Brothers	Sacramento Mainstem	\$49,000	\$49,000	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow	Executed 6/5/98.
98-B02	Boeger Family Farm screen (A319)	Boeger Family Farms	Sacramento Mainstem	\$15,000	\$15,000 	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow	Executed 8/18/98.
98-B03	(A215)	Anderson- Cottonwood Irrigation District	Sacramento Mainstem	\$325,000	\$325,000	\$325,000	\$0	\$50,000	•	Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Executed 6/5/98.
98-B05	watershed project (F189)	Colusa County Resource Conservation District	Colusa Basin	\$598,633	\$598,633	\$23,000	\$0	\$1,508,000		Evaluate different application practices and vegetation conditions on impact to level of surface runoff of OP pesticides and sediments. Water quality and flow measurements in runoff adjacent to sites. Evaluate if stable grade conditions will reduce erosion. Site erosion monitoring, pre and	Executed 6/24/98.
98-B07	Evaluation of selenium sources, levels, and consequences in the Delta (B103)	USGS	Delta	\$1,588,709	\$1,588,709	\$225,000	\$0	\$1,190,655		Evaluate sources of selenium at various times and locations. Collect and analyze water column samples. Evaluate impact of selenium on critical prey/indicator species at various times and locations, and relate to impacts on species of concern. Collect and analyze selected	Interagency contract executed 8/12/98.
98-B08	enhancement (M315)	Reclamation District No. 2060	Delta	\$85,000	\$85,000	\$0	\$0	\$0		<u>orevfindicator species. Measure levels and kinetics</u> Restoration of levee using environmentally friendly approaches. Sediment deposition/accretion and topographic surveys, pre and post project. Survey- of vegetation survivorship, diversity and growth at various increments of time.	Executed 6/2/98.
98-B09	in Suisun Bay and Local	Central Contra Costa Sanitary District	Delta ·	\$266,000	\$266,000	\$16,000	\$0	\$191,000		Increase awareness of users to detrimental impacts and mitigations approaches. User survey on participation, value, and product sales pre and post implementation. Reduce the runoff levels as a result of implementation. Concentration of OP pesticides in influent of waste water, and may have urban creek water quality measurements, and	ļ
98-B10	*	US Forest Service	Cosumnes River	\$38,000	\$38,000	\$0	\$0	\$0		Develop watershed restoration plan to reduce erosion. Monitor aquatic habitat and channel characteristics, water chemistry and species	Executed 8/6/98.
	and passage (A197)	Woodbridge Irrigation District	Mokelumne River	\$1,575,000	\$1,575,000	\$79,000	\$0	\$0		Increase upstream passage of returning adults. Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow	Executed 6/30/98.
98-B13	Napa River Wetlands acquisition (M131)	Napa County Land Trust	Northbay	\$1,000,000	\$1,000,000	\$0	\$0	- \$0	956	Protect and restore native marsh wetland habitat.  Monitor vegetation, fish and wildlife populations.	Executed 9/24/98.

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CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds : Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status
98-B14	Bacterial treatment of Selenium in the Panoche Drainage (B273)	UC Berkeley	San Joaquin Mainstem	\$1,148,326	\$1,148,326	\$140,000	\$0	\$0		Demonstrate the effectiveness of microalgae as a substrate for nitrate and selenium reduction in agricultural discharge water. Treatment effectiveness and operational issues. Costs of	Executed 9/9/98.
	Evaluation of tagging data (180)	Northwest Marine Technology	Landscape	\$625,000	\$625,000	\$0	\$0	\$0		Evaluate feasibility and benefits for mass marking techniques. Data review on tagging and recovery.	Executed 7/1/98.
98-B16	Battle Creek screens and fish passage (A194)	Department	Battle Creek	\$395,000	\$395,000	\$5,000	\$0	\$0		Increase upstream passage of returning adults over barriers to make habitat available for spawning and rearing. Video observation and radiotag tracking at the CNFH fish ladder. Monitor and estimate populations via snorkel, carcass counts, redd and aerial surveys. Measure relative abundance, distribution and emigration timing of juveniles via	Executed 9/10/98.
					•					screwtrap. Measure and evaluate fish injury with CNFH passage using organosomatic index. Measurement of flow and velocity at various stage heights to determine performance and reliability to design standards. Preclude passage of hatchery fish during their return to the hatchery. Direct observations at weir and upstream; tracking of radio tagged fish. Increase thering habitat rutility.	
98-B17	Cosumnes floodplain acquisition and restoration (H307)	The Nature Conservancy	Cosumnes River	\$3,400,000	\$3,500,000	\$3,500,000	\$0	\$0	2,256 <sup>1</sup>	Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Executed 7/8/98.
98-B21		of Water Resources	Mill Creek	\$1,280,000	\$0	\$0	\$0	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Agreement being prepared.
98-B22	Fish Passage Improvement Project at the Red Bluff Diversion	Tehama- Colusa Canal Authority	Sacramento Mainstem	\$340,600	\$340,600	\$0	\$0	\$0		Similar to 98B16	Executed 3/8/99.
	Salmon Fish Passage	Natural Heritage Institute et. al.	Other	\$178,200	\$0	\$0	\$0 -	\$0	,	Increase upstream passage of returning adults.  Measure physical configuration and velocities.  Observation of upstream migration.	Agreement sent 3/16/99.
		Anderson- Cottonwood Irrigation District	Sacramento Mainstem	\$860,000	\$0	\$1	\$0	\$0		Protect and restore tidally influenced wetlands, riparian corridors, and upland habitats	Agreement sent 3/11/99.
	Cosumnes River Salmoid Barrier Program Fishery(B1009)	Foundation of California	Cosumnes River	\$188,255	\$188,255	\$0	\$0	\$188,255		Increase upstream passage of returning adults. Pre and Post project monitoring of spatial and temporal spawning distribution and spawning	Executed 3/11/99.
98-B26	Boeger Family Farm Fish screen Phase II: Construction (B1014)	Boeger Family Farms	Sacramento Mainstem	\$139,500	\$0	\$0	\$0	\$139,500		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Agreement being prepared.
98-B27	Hastings Tract Fish Screen Phase II: Construction (B1015)	Hastings Island Land Company	Delta	\$271,250	\$0	\$0	\$0	\$271,750		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow yelocities.	Agreement being prepared.
98-B28		City of Sacramento	Sacramento River	\$654,500	\$0	\$0	\$0	\$745,000		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Agreement being prepared.
98-B29	American Basin Fish	Natomas Mutual Water Company	Sacramento River	\$200,000	\$0	\$0	\$200,000	\$0		Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities.	Agreement being prepared.
	San Joaquin Valley 'Salmonids in the Classroom Program Enhancement (H1001)		San Joaquin River	\$3,000	\$0	\$0	\$0	\$0		Increase student awareness of issues and needs of aquatic and terrestrial natural resources.	Executed.
98-B31		Independent Documentary Group	Landscape	\$54,000	\$54,000	\$36,000	\$0	\$0 -		Increase public awareness of issues and needs of functional river system.	Executed 2/23/99.

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CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status
98-B32	Agriculture Conferences and Field Tours (H1005)	Sustainable	Other	\$28,000		\$14,000	\$0	\$0		Increase farmer awareness of issues and needs of functional river system.	Executed 2/25/99.
98-B33	Headwaters to the Ocean, Public	Sacramento River Discovery Center	Sacramento River	\$49,640	\$49,640	\$8,000	\$410,000	\$1,082,500		Increase public awareness of issues and needs of functional river system.	Executed 2/25/99.
98-B34	Discover the Flyway (H1008)	Yolo Basin Foundation	Deita	\$49,000	\$49,000	\$0	\$0	\$0		Increase student awareness of wetlands and wildlife issues in the Yolo Basin.	Executed 3/22/99.
98-B35	The Butte Creek Watershed Educational Workshops and Field	CSU-Chico	Sacramento River	\$33,000	\$33,000	\$0	\$0	\$0		Increase public awareness of issues and needs of aquatic and terrestrial natural resources.	Executed 3/15/99.
98-B36	Bay-Delta : Environmental	Water Education Foundation	Landscape	\$40,000	\$40,000	\$0	\$0	\$0		Increase public awareness of environmental issues in the Bay-Delta.	Executed 3/8/99.
98-B37		The Delta Science Center at Big	Delta	\$42,000	\$0	\$1	\$0	\$0		Increase public awareness of environmental issues in the Bay-Delta.	Contractor not responding.
98-838	Education Program (H1017)	Sacramento Regional County Sanitation District	Other	\$9,600	\$0	\$2	\$0	\$0		Increase public awareness of issues related to release of hyacinth.	Executed.
98-B39	(H1018)	San Francisco Bay Model Visitor	Landscape	\$64,500	\$64,500	\$0	\$0	\$15,000		Increase public awareness of environmental and water management issues in the Bay-Delta.	Executed 3/5/99.
98-B40		City of Modesto	Delta	\$44,700	\$0	\$0	\$0	\$0		Increase public awareness of issues and needs of river system environment.	Executed.
99-B01	Battle Creek Salmon and Steelhead Restoration Project	PG&E	Sacramento Tributary	\$28,000,000	\$49,000	\$49,000	\$0	\$0		Increase upstream passage of winter-run salmon and spring-run salmon	Contract being prepared.
99-B02	1 3	Ducks Unlimited,	Sacramento Tributary	\$775,000	\$0	\$0	\$0	\$0		Increase upstream passage of returning adult s. Reduce entrainment of outmigrating fish.	Contract being prepared.
99-B03	ACID Fish Passage and Fish Screen Improvement Project,		Sacramento Mainstem	\$5,253,000	\$0	\$0	\$0	\$0		Increase upstream passage of returning adults. Reduce entrainment of outmigrating fish. Measure screen approach, sweep, and bypass flow velocities. Evaluate the Impact of shallow water restoration actions on water quality. Collect and conduct physical/chemical analys of water and soil	Contract being prepared.
99-B04	Habitat Enhancement;	Dept. of Water Resources	Merced River	\$130,000	\$0	\$0	_ \$0	\$0		Reduce entrainment of outmigrating fish. Measure temperature and fish distribution and abundance.	Contract being prepared.
99-B05	Merced River Salmon Habitat Enhancement;	Dept, of Water Resources	Merced River	\$1,633,000	\$0	\$0	\$0	\$0		Same as 99-B04	Contract being prepared.
	Assessment of		Bay-Delta	\$3,800,000	\$0	\$0	\$0	\$710,000		Determine bioavailable sources of mercury in the Bay-Delta Watershed. Obtain data on mercury levels in fish and complete pilot mine remediation feasibility studies.	Contract being prepared.
			Total: \$	\$77,604,613	\$34,479,863	\$7,078,004					
•			46		44%	9%					67%
		1	Contracts	ĺ	Obligated	Expended					Executed

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CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved	CALFED Funds	CALFED Funds	CVPIA Funds	Other Funds	Acres	Monitoring	Status
		i	C	Funding Ontract Ac	Obligated	Expended Fnyironm		otection	Agenc	y (Federal funds)	<u> </u>
97-E01	Watershed Plan (Big Chico Creek) (F219)	Big Chico Creek Watershed Alliance	Big Chico Creek	\$295,313	\$295,313				7 igonio	Reduce impacts of past and ongoing land use practices to enhance aquatic habitats. Conduct riparian and geomorphic surveys, pre and post project.	\$127,517 will be obligated in April. EPA watershed funds.
97-E02	Watershed planning (Deer Creek) (F237)	Deer Creek Watershed Conservancy , CSU Chico	Deer Creek	\$196,554	\$196,554	\$78,622		\$231,000		Reduce land use practices detrimental to aquatic environments. Monitor water quality.	Executed.
98-E01	Napa River watershed (M92)	Napa County Resource Conservation District	Northbay .	\$250,000	\$250,000	\$145,377	\$0	\$0		Protect and enhance the riparian and riverine habitats. Monitor habitat characteristics, geomorphology and bank stability, flow/runoff, species assessments, and water quality. Facilitate broadbased local stakeholder group in development of watershed plan. Develop river model to assess alternative scenarios. Collect flow	Executed 5/29/98.
98-E02	Sonoma Creek watershed (M113)	Southern Sonoma County Resource Conservation District	Northbay	\$300,000	\$300,000	\$120,000	\$0	\$0		Protect and enhance the riparian and riverine habitats. Monitor riverine conditions: gravel, temperature. Riparian monitoring and non native control. Implement environmentally-responsible vineyard management practices. Monitor water quality and habitat characteristics. Increase public awareness of issues and needs of aquatic and terrestrial natural resources. Increase upstream	Executed 5/29/98.
98-E03	Regional Wetlands Goals Project (M130)	San Francisco Estuary	Northbay	\$76,000	\$76,000	\$0	\$0	\$0		Evaluate restoration and rehabilitation needs of region.	Completed.
98-E04 -	Petaluma River Watershed Restoration Program (G1014)	Southern Sonoma County Resource Conservation District	Northbay	\$220,000	\$220,000	\$0	\$0	\$0		Evaluate and implement restoration and rehabilitation needs of the region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected by end of April.
98-E05	Cottonwood Creek Watershed Group Formation (G1015)	Cottonwood Creek Watershed Group	Sacramento Tributary	\$161,000 -	\$161,000		\$0	\$0	***	Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected
98-E06	Battle Creek Watershed Stewardship (G1018)	Battle Creek Watershed Conservancy	Battle Creek	\$145,000	\$145,000		\$0	\$0	-	Facilitate broadbased local stakeholder group in development of watershed plan. Improve watershed practices to reduce detrimental impacts on aquatic habitats.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected
98-E07	Local Watershed Stewardship: Steelhead Trout Plan (G1022)	Friends of Corte Madera Creek	Northbay	\$47,500	\$47,500	\$0	\$0	\$0	- •	Develop steelhead restoration plan. Collect fish habitat and population information and thermograph data.	NFWF executed a subagreement on 4/2/99.
98-E08	Cold Water Fisheries and Water Quality Element (G1023)	City of San Jose- Environment al Services Department	Other	\$200,000	\$200,000	\$0	\$0	\$0		Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected by end of April.
98-E09	Merced River Corridor Restoration Plan (G1026)	Stillwater Sciences & Merced Co. Planning & Comm. Develo, Dept.	San Joaquin River	\$300,000	\$300,000	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed project A NFWF sub-agreement is expected by end of April.
98-E10	South Yuba River Coordinated Watershed Management Plan	Department	Sacramento River	\$264,000	\$264,000	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected

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<sup>&</sup>lt;sup>2</sup> Acquisition of existing habitat, or restoration of public lands or existing degraded habitat - No land use change.

CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status
	Watershed Restoration Strategy for the Yolo Bypass	Yolo Basin Foundation, Inc.	Delta	\$244,188	\$244,188	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects. A NFWF sub-agreement is expected
98-E12	Proposal to Develop Local Watershed Stewardship Plan for the Lower Mokelumne River	County Resource	Mokelumne River	\$159,000	\$159,000	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects. A NFWF sub-agreement is expected by end of April.
	Union School Slough Watershed Improvement Program	National Audubon Society - California	Other	\$636,000	\$636,000	\$0	\$0	\$0	•	Develop and implement riparian restoration project on farms. Water quality and habitat surveys	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects. A NFWF sub-agreement is expected
	American River Integrated Watershed Stewardship Strategy	Placer County Resource Conservation	Sacramento River	\$220,750	\$220,750	\$0	\$0	\$0		Evaluate restoration needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected
	Sulphur Creek Coordinated Resource Management Planning Group	Sacramento Watersheds Action Group	Sacramento River	\$23,828	\$23,828	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in implementation of restoration activities.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected
98-E16	Lower Putah Creek Watershed Stewardship Program	Solano County, Department of	Sacramento Tributary	\$100,500	\$100,500	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate restoration and rehabilitation needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects A NFWF sub-agreement is expected
	Alhambra Creek Watershed CRMP Program	Contra Costa Resource Conservation District	Suisun Marsh	\$138,500	\$138,500	\$0	\$0	\$0		Facilitate broadbased local stakeholder group in development of watershed plan. Evaluate and implement restoration and rehabilitation needs of region.	EPA executed a cooperative agreement with NFWF in February to manage these 14 watershed projects. A NFWF sub-agreement is expected
			Total: \$	\$3,978,133	\$3,978,133	\$462,124					
			19 Contracts		100% Obligated	12% Expended					100% Executed

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CALFED No.	Project Description	Applicant	Geographic Area	Approved	Funds	Funds	CVPIA Funds	Other Funds	Acres	Monitoring	Status
110.			Alea	Funding	Obligated	Expended					<u> </u>
		,				US Fish	and Wild	llife Serv	/ice (F	ederal funds)	
	Butte Greek Watershed (F222,224,225)	CSU Chico	Butte Creek	\$261,300	\$261,300		\$0	\$0		Evaluate erosion sediment sources and implement corrective actions. Inventory road infrastructure and erosion features and changes over time. Protection and enhancement of riparian corridors and floodplain habitats and processes. Collect geomorphic data (channel incisions, gravel deposits, terraces, etc.) in channel and riparian characterization via surveys. Increase awareness	Executed.
	Butte Creek Watershed Coordinator Assistant (F221)	Butte Creek Watershed Conservancy	Butte Creek	\$32,700	\$32,700	\$0	\$0	\$0		Improve coordination of watershed groups and restoration activities.	Contract under preparation.
	Butte Creek acquisition and riparian restoration (G218)		Butte Creek	\$125,000	\$125,000	\$125,000	\$0	\$0	80	Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Executed.
		Mill Creek Conservancy , The Nature Conservancy	Mill Creek	\$29,730	\$29,730 ·	\$0	\$0	. \$0	74 <sup>2</sup>	Restore and improve floodplain functions. Restore riparian and wetland vegetation. Monitor vegetation, fish and wildlife populations.	Executed.
98-F06	Tuolumne River setback levees and channel restoration (H136)	Turlock Irrigation District	Tuolumne River	\$655,700	\$0	\$655,700	\$0	\$0		Improve and restore spawning habitat and durability. Monitor geomorphology (pebble counts, tracer rocks, stabilization) and channel characteristics, pre and post project and after flow events. Conduct redd counts and other use surveys. Conduct tracer rock evaluations. Improve survival of outmigrating smolts due to predation. Measure conversion of predator habitat (temperature, flow, transit, channel cross section). Survey predator population density. Conduct mark-recapture of smolts. Improve and restore riparian	Executed 9/3/98.
	Perpetual Easement and Restoration	East Stanislaus RCD and Friends of the	San Joaquin River	\$732,000	\$732,000	\$0	\$0	\$311,000	140 <sup>1</sup>	Protect and enhance riparian and floodplain habitats. Measure species diversity and populations compared with desired conditions.	Executed
	(C1004)		Suisun Marsh	\$200,000	\$200,000	\$0	\$0	\$0	200 <sup>2</sup>	Restore tidal action of seasonal and permanent wetlands. Survey fishery and wildlife use and habitats. Survey vegetation composition, growth, trends and recruitment.	Agreement signed by Cooperator 1/7/99. Implementation begun.
	•	Department of Fish and Game	Delta	\$25,000	\$25,000	\$0	\$0	\$0	67 <sup>2</sup>	Restore and improve floodplain functions and shallow water and riparian habitat. Survey of fish and avian use. Survey of habitat conditions.	Cooperative Agreement sent to Applicant for signature 1/13/99, 30- day notice sent.
	Area Restoration Demonstration Project (C1008)	Department of Fish and Game	Sacramento River	\$256,476	\$256,476	\$0	\$0	\$10,000	85 <sup>2</sup>	Evaluate effectiveness of passive floodplain functioning to restore riparian and wetland vegetation. Monitor natural colonization of vegetation; fish use of floodplain; and fish	Contract under preparation.
,	Salmon Habitat Enhancement (C1009)	of Fish and Game	Merced River	\$2,433,759	\$2,433,759		\$2,433,759	\$790,000		Monitor physical processes, abundance of fish, revegetation and predation. Topo surveys, fish sampling. Mark/recapture, photo survey.	Executed
		US Fish and Wildlife Service, Sacramento Realty Office	Delta	\$1,900,000	\$1,900,000	\$0	\$0	\$0	658 <sup>1</sup>	Protect and restore tidal and seasonal wetlands, riparian corridors and upland habitats. Survey for fish and wildlife use.	Funds transferred to USFWS, Sacramento Realty Office. Implementation begun. Offer made on one property 3/3/99.
	Expansion Project - Marin County (C1016)	Marin Audubon Society	Northbay	\$352,135	\$352,135	\$0	\$0	\$525,885	181	Protect and restore tidal marsh. Evaluate fish and avian use, sedimentation and other channel/geomorphic processes, vegetation and	Agreement signed by Cooperator 1/7/99. Implementation begun.
		Napa County Land Trust	Northbay	\$431,000	\$431,000	\$0	\$0	\$65,000	600	Recolonization of native plants, plant surveys and survival rates. Monitor tidal and over bank flows and sedimentation.	Executed

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CALFED No.	Project Description	Applicant	Geograph Area	Approved	CALFED Funds	CALFED Funds	CVPIA Funds	Other Funds	Acres	Monitoring	Status
98-F15	Lower Clear Creek Floodway Restoration	Western Shasta	Sacrament River	Funding 5 \$3,559,596	Obligated \$3,559,596	Expended \$0	\$500,000	Funds \$0	70	Improve spawning and rearing habitat and its durability. Survey spawning habitats and	Executed
	7	Resource Conservation District								spawning/rearing use. Conduct tracer rock evaluations across different locations. Monifor flows and geomorphic and channel characteristics over time. Reduce stranding of outmigrating/rearing fish. Visual, seining and electrofishing survey following flood events.  Restore natural functioning ripagian communities.	
	Shaded River Aquatic	Thomas Luckey (L & L Farms, LLC)	Delta	\$425,000	\$425,000	\$0	\$0	\$0	168 <sup>2</sup>		Executed
	Benicia Waterfront	City Of Benicia	Suisun Mar	sh \$59,000	\$59,000	\$0	\$0	\$0	8 <sup>2</sup>	Restore tidal action to salt marsh habitat to provide tidal saline emergent wetlands. Survey target wetland vegetation and removal of exotic plants.	Agreement signed by Cooperator 1/13/99. Implementation begun.
	Floodplain Acquisition, Management, and Monitoring on the Sacramento River (C1028)	The Nature Conservancy , Wildlife Conservation Board, and others	Sacrament Mainstem	\$1,000,000	\$1,000,000	\$0	\$0	\$0	500	Develop projectwide monitoring to assess channel meander and habitat restoration. Survey geomorphologic processes and floodplain habitat response.	Cooperative Agreement submitted to FWS Regional Office for review and approval 3/1/99.
98-F19	Cosumnes River Acquisition, Restoration Planning and	The Nature	Cosumnes River	\$750,000	\$750,000	\$0	\$0	\$0	800 <sup>2</sup>	Acquire and restore floodplain and wetland habitat and functions. Monitor habitat characteristics and species use.	Cooperative Agreement submitted to FWS Regional Office for review and approval 3/1/99.
	Deer and Mill Creeks Acquisition and Enhancement (C1033)		Sacramente River Tributaries			\$0	\$0	\$0	2,500 <sup>1</sup>	Increase native riparian growth adjacent to the river. Measure tree density and species composition and height, pre and post project.	Cooperative Agreement submitted to FWS Regional Office for review and approval 3/3/99.
Ì	Protection and	US Fish and Wildlife Service, San Luis National Wildlife	San Joaqui River	n \$1,100,000	\$1,100,000	\$0	\$0	\$4,799,000	4,0991	Protect and enhance riparian and floodplain habitats. Baseline habitat and wildlife surveys. Habitat mapping.	Funds transferred to USFWS, San Luis NWR Complex. Implementation begun. Appraisals made and negotiations underway to acquire
	Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay	California State University Hayward	Suisun Mar	sh \$772,667	\$772,667	\$0	\$0	\$243,812	272 <sup>2</sup>	Restore emergent and immersed marshland. Monthly monitoring for sedimentation, water quality, vegetation, fish and avian use and populations, and planktonic foods.	Agreement signed by Cooperator 1/4/99. Implementation begun.
98-F23	South Napa River Tidal	City of American Canyon	Northbay	\$1,455,000	\$1,455,000	\$0	\$0	\$718,000	519 <sup>2</sup>	Monitor return of tidal flows, recolonization of native plants, survival of riparian vegetation and fish utilization.	Agreement signed by Cooperator 1/9/99. Implementation begun.
-	Butte Creek Riparian Restoration Demonstration (C1046)	Don Holtgrieve, Department of Geography and	Butte Creel	\$76,348	\$76,348	\$0	\$0	<b>\$0</b>		Monitor revegetation success. Bioassessment of benthic invertebrates. Water quality monitoring. Wildlife inventories.	Agreement signed by Cooperator 2/11/99. Implementation begun.
	Program	U.S. Fish and Wildlife		\$1,250,000		\$0	\$0	\$0		CALFED has developed this program to identify and implement projects addressing exotic species	Projects under this program will be selected through the current PSP.
		Turlock Irrigation District	Tuolumne River	\$165,000		\$0	\$356,000	\$0		Monitor physical habitat changes, survival of riparian vegetation and fish population changes, post restoration.	Contract being prepared.
	Restore MJ Ruddy Reach (DA9)	Turlock Irrigation District	Tuolumne River	\$3,332,000			\$3,079,000	\$0		Monitor physical habitat changes, survival of riparian vegetation and fish population changes, post restoration.	Contract being prepared.
	levees (DA13)	The Nature Conservancy	Delta	\$860,000		\$0	\$0	\$250,000		Monitor riparian vegetation, wildlife, avian and fish resources.	Proponent expects to sign option 4/99.
	McCormack-Williamson Tract Acquisition (F1-	The Nature . Conservancy	Delta	\$5,250,000		\$0	\$0	\$0	1655 <sup>1</sup>	See 99-F03	Proponent expects to sign option 4/99.
			Total: \$	\$28,489,41	\$18,226,711 %	\$780,700 3%	-			· · · · · · · · · · · · · · · · · · ·	46%
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CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status			
	Contract Agency: US Army Corps of Engineers (Federal funds)													
98-A01	Prospect Island (DA)		Delta	\$2,000,000	\$2,000,000	\$1,671,000	\$0	\$0		Repair levee breach and pump out island	Project complete.			
	Flood Control Bypass Habitat Program		Delta	\$1,200,000	\$1,200,000	\$4,000	\$0	\$0		CALFED has identified this program to fund Flood Control Bypass habitat projects. They are now developing a strategy for implementation.	Developing strategy. Projects under this program will be selected through the current PSP.			
	Prospect Island Monitoring Project (DA5)		Delta	\$915,000	\$0	\$0	\$0	\$0		Restore 1,300 acres of shallow water habitat.  Monitor fish, wildlife, water quality, vegetation, sediments, nutrients and benthic communities.	Contract being prepared			
			Total: \$	\$4,115,000	\$3,200,000	\$2,455,700				·				
			3		78%	60%					33%			
			Contracts		Obligated	Expended					Executed			

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CALFED No.	Project Description	Applicant	Geographic Area	CALFED Approved Funding	CALFED Funds Obligated	CALFED Funds Expended	CVPIA Funds	Other Funds	Acres	Monitoring	Status			
	Contract Agency: National Resources Conservation Service (Federal funds)													
	Small Diversion Fish Screen Program	NRCS	Delta	\$900,000	\$900,000	\$0	\$0	\$0		Reduce entrainment of outmigrating and residentifish. Measure screen approach, sweep, and bypass flow velocities.	Funds will be used to complete existing projects. New projects will be recruited through NRCS process.			
}	Floodplain Easements; Lower Tuolumne and San Joaquin	NRCS	San Joaquin River	\$1,545,000		\$0		\$1,500,000	1,200	Acquire and restore area prone to flood damage.  Monitor vegetation and wildlife populations.	Contract being prepared			
			Total: \$	\$2,445,000	\$900,000	\$0								
	·	-	2 Contracts		37% Obligated	0% Expended					0% Executed			

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